



Patent Application of Virgil L. Roper for "Transportable, Self-Contained,  
Recirculating, Wash Plant" continued

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What is claimed is;

1. A transportable, self-contained wash plant, comprising;
  - (a) a frame, said frame having a tongue and hitch, said frame being attached to a set of axles with tires, an adjustable jack stand being welded to said frame, said frame having a front extension;
  - (b) a water pump, having a suction hose and a discharge hose, said discharge hose being attached to a manifold, said manifold being connected to a control valve, said water pump being mounted on said extension of said frame;
  - (c) a water reservoir, said reservoir being of a predetermined size, said reservoir having a bottom, four sides and a lid, said sides being flanged, said reservoir having a water drain on the backside of said reservoir, a water port on the front side of said reservoir and a water reservoir water fill hole on the top of said lid of said reservoir, said reservoir water fill hole having a plurality of bolts, surrounding said reservoir water fill hole, said reservoir being mounted on and attached to said frame, said water port being connected to said suction hose on said pump;
  - (d) a filtration box, being of a predetermined size, having two parallel sides, a back side, an extended front side and a bottom, said filtration box having a rear vertical mounting bracket, said bottom of said filtration box having a filtration box water fill hole, said filtration box water fill hole being equal in dimensions to said water reservoir water fill hole, said filtration box water fill hole having a guard, said guard having a rim, said rim having a plurality of bolt holes, said filtration box being mounted on said lid of said reservoir, said bolts on said rim passing through said bolt holes, surrounding said water reservoir water fill hole, said reservoir water fill hole and said filtration box water fill hole becoming aligned;
  - (e) a cover plate, said cover plate being place over said water reservoir water fill hole and said filtration box water fill hole being attached with a plurality of fastening devices;
  - (f) a sluice box, having a bottom, an enclosed head, an open back and two parallel sides, said sides being flanged at the top, said bottom containing a combination of ribbed rubber matting, miners

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moss, a piece of punch plate and a riffle tray, said sluice box, being placed at a predetermined angle and mounted on said extended front and said vertical mounting bracket of said filtration box;  
(g) a feed hopper, said feed hopper having two laterally sloping sides, a bottom, an open front and a back said back being partially enclosed by a support bracket, a nozzle being attached to one side of said feed hopper, said nozzles being connected by a plurality of pipe fittings, being connected to a control valve, said control valve being connected to said discharge of said water pump, said feed hopper having a grizzly screen, said grizzly screen being attached to said sides of said feed hopper at a predetermined distance above said bottom, said bottom having a slit of a predetermined size, said front of said feed hopper being attached by a hinge to said front of said sluice box, said support brackets of said feed hopper being rested upon said sides of said sluice box;

2. As a means of separating fine sands from water;

The transportable, self-contained wash plant of claim 1, the filtration box further comprising, a removable sediment pan, said sediment pan being of a predetermined size, having a bottom and four sides, said filtration box further including a plurality of slots and a predetermined amount of filtering devices, said sediment pan being placed inside of and to one end of said filtration box, said slots being located at a predetermined distance, between said sediment pan and said water reservoir fill hole and said filtration box water fill hole, as defined in claim 1, said filtering devices being placed at a predetermined angle into said slots.

3. As a means of separating gravel from sand and water;

The transportable, self-contained wash plant of claim 1, the sluice box further comprising, a detachable extension, said extension having two sides and a bottom, said sides being flanged at the top, said bottom having a filter screen, of a predetermined size, said extension being attached to said

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sluice box by a plurality of fastening devices, said extension sloping at a predetermined angle, being rested upon said filtration box, as defined in claims 1 and 2, allowing said filter screen to be located directly above said sediment pan, as defined in claim 2.